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First Named Inventor

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Art Unit

2627

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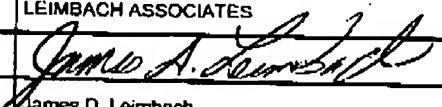
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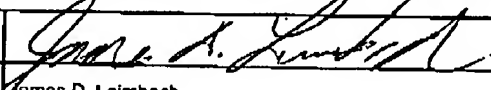
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	This transmission contains a Reply Brief responsive to an Examiner's Answer mailed August 6, 2007. This Reply Brief is being filed on the first business day following a Federal Holiday and a weekend, and is therefore timely filed today, October 9, 2007. Accordingly, no extension fee is due.	

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

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OCT 09 2007

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND**  
**INTERFERENCES**

In re Application of  
Robetus A. J. Van Kolenburg

RECORD CARRIER OF THE  
OPTICAL DISC TYPE AND  
DEVICE FOR RECORDING  
AND/OR PLAYBACK FOR USE  
WITH SUCH A RECORD  
CARRIER

Serial No. 10/014,238

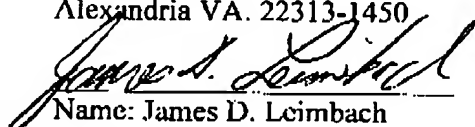
Filed: December 11, 2001

Group Art Unit: 2655

Examiner: Jorge L. Ortiz Criado

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**REPLY BRIEF UNDER 37 C.F.R. § 41.41**

This Reply Brief is responsive to the Examiner's Answer mailed August 6, 2007

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**Appealed claim 1**

Appealed claim 1 defines subject matter for a record carrier of the disc-like optically inscribable type, having a preformed track in which an auxiliary signal including a sequence of codes is recorded by means of a preformed track modulation, which codes include a sequence of address codes specifying the addresses of the track portions in which the address codes are recorded and special codes which can be distinguished from said address codes specifying control data for controlling a recording by a recording device and which sequence can be obtained by replacing in a sequence of address codes with consecutive address values a plurality of the address by special codes, wherein the sequence includes a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address (*emphasis added*).

Appealed claim 1 specifically defines the period pattern to be of address codes and special codes. The pattern as defined by appealed claim 1 is a periodic pattern that requires a repeating pattern of address codes and special codes. The rejection to appealed claim 1 has ignored the clear limitation of term "periodic pattern" as being one of address codes and special codes. The appellant, respectfully, submits that no reasonable interpretation of the term periodic pattern of address codes and special codes can include a pattern of only a single address code and a single auxiliary code as alleged by the examiner in making the rejection.

The term "periodic pattern" is defined as used within the application for the present invention as originally submitted on page 2, lines 8-10; which states that a "specific order, for instance of first second and third special code within the periodic pattern, may also easily be detected, as each special code should be uniquely identifiable." The appellant asserts that the specification to the present invention clearly defines that the periodic pattern includes multiple special codes. The term "periodic pattern" is also used within the Abstract to the present invention as the "periodic pattern of address codes and special codes has a predetermined relationship with respect to a predetermined reference address. Therefore, the specification to the present invention defines that the periodic pattern includes plural address codes and plural special codes.

The MPEP at §2111 states that during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. The MPEP at §2111 further states that the Patent and Trademark Office determines the scope of

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claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

The term periodic pattern within appealed claim 1 refers to a pattern that repeats itself on a periodic basis. The term periodic is defined by the American Heritage Dictionary, Third edition as 1. Having or marked by repeated cycles. 2. Happening or appearing at regular intervals. 3. Recurring or reappearing from time to time; intermittent. 4. Characterized by periodic sentences. Clearly, definition number 4 has no meaning application within the context of the present application for invention. Definitions 1, 2 and 3 do have application and the use of either of these definitions is compatible with the definition of periodic as applied to pattern as used within the specification to the present application for invention on page 2, lines 8-10 and within the Abstract of the present application for invention. There is no support in common usage or within the specification to the present application for invention for the examiner's interpretation of the term "periodic pattern" as only a single pattern.

The MPEP at §2111.01 quotes the court in stating that "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*). A person of ordinary skill within the art would view the term "periodic pattern" as a pattern that repeats itself on a regular basis. There should be no doubt that the term "periodic pattern" refers to a pattern that occurs within repeated cycles, appears at regular intervals or reoccurs from time to time. The definition that is applied by the examiner in making the rejection is wholly inconsistent with the definition that is supplied within the specification to the application for the present invention and the definition that would be the ordinary and customary meaning to that term.

The rejection to appealed claim 1 (as restated on page 4 of the examiner's Answer) identifies column 6, line 1 through column 7, line 56 of *Roth et al.* as disclosing that the subject matter for "the said sequence comprises a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address". The appellant disagrees with this assertion made in the Examiner's Answer.

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This portion of *Roth et al.* simply teaches that marking of radial positions, such as r1 and r3, can be accomplished using auxiliary codes (see column 6, lines 43-50 of *Roth et al.*). There is no disclosure or suggestion within *Roth et al.* for "a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address."

The Examiner's Answer asserts that *Roth et al.* disclose a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address. This assertion is based on the sequence shown in Figure 7 of *Roth et al.* The examiner's position is that the sequence of address codes (AC) and auxiliary codes (HC) illustrated by Figure 7 of *Roth et al.* have a predetermined positional relationship to a predetermined reference address (see Examiner's Answer, bottom of page 10). It should be noted that the examiner does not assert that the periodic pattern of address codes and auxiliary codes has a predetermined relationship with a predetermined reference address.

The Examiner's Answer on the bottom of page 10, indicates that the disclosure of *Roth et al.* teach that the value of the address code (AC) for the predetermined address (AVI) has a positional relationship reference point marked by auxiliary code (IIC). The appellant, respectfully, draws the Board's attention to the wording of appealed claim 1. Appealed claim 1 defines a periodic pattern of address codes and special codes. The periodic pattern is not a single pattern of nine addresses and a single auxiliary code, which is the subject matter within *Roth et al.* used by the examiner in making the rejection. The pattern defined by appealed claim 1 is a periodic pattern formed by successive address codes and special codes. Appealed claim 1 defines that this repeating pattern has a positional relationship to a predetermined reference address. Note that the Examiner's Answer on the bottom of page 7 states that *Roth et al.* disclose a period pattern formed of nine address codes (AC) followed by a special code (IIC). The Examiner's Answer does not assert that this periodic pattern has a predetermined positional relationship with respect to a predetermined reference address. The Examiner's Answer asserts that one of the periods within the pattern has a predetermined positional relationship with respect to a predetermined reference address.

Accordingly, the rejection of appealed claim 1 should be reversed.

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**Appealed claim 2**

Appealed claim 2 defines subject matter for the record carrier defined by claim 1, provided with a lead-in area located at an inner area of the disc including the special codes, characterized in that, the predetermined reference address is the start address or the end address of the lead-in area.

It should be noted that appealed claim 1 defines a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address. The recitation of appealed claim 1 is for the periodic pattern to have a positional relationship with the predetermined reference address. The cited reference, *Roth et al.*, do not disclose a periodic pattern having a positional relationship with the predetermined reference address. *Roth et al.* disclose auxiliary codes in that the values for AVI and AVO (see *Roth et al.* column 6, lines 55-57). Therefore, *Roth et al.* disclose auxiliary codes that give the exact location of the lead-in area or the lead-out area. *Roth et al.* do not disclose or suggest positional relationship to the lead-in area or the lead-out area; instead *Roth et al.* disclose auxiliary codes that give the exact location of the lead-in area or the lead-out area. Appealed claim 2 defines a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to the start address or the end address of the lead-in area. *Roth et al.* do not disclose, or suggest, any periodic pattern of address codes and auxiliary codes providing any positional relationship with the start address or the end address of the lead-in area.

Accordingly, the rejection of appealed claim 2 should be reversed.

**Appealed claim 3**

Appealed claim 3 defines the subject matter for the record carrier of appealed claim 2, wherein the periodic pattern comprises special codes separated by a first number of successive address codes, characterized in that, the periodic pattern is shifted by a predetermined number of address codes with respect to the predetermined reference address.

As argued in the response to the Examiner's Answer for rejection of appealed claim 1 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for identifying anything. *Roth et al.* disclose auxiliary codes that give the exact location of areas, such as the lead-in area or the lead-

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out area. Appealed claim 3 clearly defines that the periodic pattern is formed by special codes separated by a first number of address codes. Appealed claim 3 includes all the elements of appealed claims 1 and 2. Appealed claims 1 and 2 define that the periodic pattern has a predetermined positional relationship with respect to a predetermined reference address. There is no disclosure or suggestion within *Roth et al.* for any periodic pattern comprising special codes separated by a first number of successive address codes to have a predetermined positional relationship with respect to a predetermined reference address.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any periodic pattern to be shifted by a predetermined number of address codes with respect to the predetermined reference address. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 1 discussed above, that there is no disclosure or suggestion for using the periodic pattern formed by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the periodic pattern is shifted by a predetermined number of address codes with respect to the predetermined reference address. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for shifting of the periodic pattern or that the periodic pattern is shifted by a number of address codes.

Accordingly, the rejection of appealed claim 3 should be reversed.

#### **Appealed claim 4**

Appealed claim 4 defines the subject matter for the record carrier according to appealed claim 2, wherein the periodic pattern includes a first number of distinct special codes separated by a first number of successive address codes, characterized in that, the first number of distinct special codes have a predetermined order.

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The Examiner's Answer on the top of page 12 addresses the appeal of claim 4. The examiner states that *Roth et al.* disclose the first number of distinct special codes has a predetermined order defined by the bit combination for bits 20, 21 and 22 within the auxiliary codes (IIC). The appellant can not concur with this line of reasoning. Appealed claim 4 further defines the periodic pattern as including a first number of distinct special codes separated by a first number of successive address codes. The examiner attempts to read bits 20, 21 and 22 of the auxiliary codes (IIC) within *Roth et al.* as the predetermined order of the distinct special codes. Appealed claim 4 clearly defines the first number of distinct special codes as being separated by a first number of successive address codes. It should be abundantly clear that bits 20, 21 and 22 of the auxiliary codes (HC) within *Roth et al.* are not separated by a first number of successive address codes as required by appealed claim 4.

Furthermore, the examiner again ignores the clear meaning of "periodic pattern" as used within the appealed claims. Appealed claim 4 clearly defines the "periodic pattern" as including a first number of distinct special codes separated by a first number of successive address codes. A reasonable definition of the term "periodic pattern" should be used in evaluating the terminology for the first number of distinct special codes having a predetermined order, and this is not done in the rejection. The special codes that have a predetermined order are separated by a first number of successive address codes. These elements are not addressed by the rejection to appealed claim 4.

Accordingly, the rejection of appealed claim 4 should be reversed.

#### **Appealed claim 5**

Appealed claim 5 defines subject matter for the record carrier according to claim 2, provided with a lead-out area located at an outer area of the disc, in that the lead-out area comprises additional control information for controlling recording by a recording device, the presence thereof been indicated by the predetermined positional relationship.

Appealed claim 5 should be viewed in its proper context including all the elements of appealed claims 1 and 2. Appealed claim 1 defines a "periodic pattern" of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address. Appealed claim 2 defines that the predetermined reference address is the start address or the end address of the lead-in area. Appealed claim 5, therefore,

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defines that the presence of additional control information for controlling recording by a recording device that is contained in the lead-out area and that the presence of this additional control information is indicated by the predetermined positional relationship. The "periodic pattern" has a predetermined positional relationship with the respect to a predetermined reference address. The rejection to the appealed claims has ignored the meaning of the "periodic pattern". As argued above in the response to the Examiner's Answer for appealed claim 1, the disclosure of *Roth et al.* do not disclose or suggest any use of the "periodic pattern" for a predetermined positional relationship with respect to a predetermined reference address. The appellant therefore, respectfully, asserts that the predetermined positional relationship defined by the appealed claims is also not disclosed or suggested by the disclosure of *Roth et al.*

Appealed claim 5 defines that the predetermined positional relationship indicate that additional control information for controlling recording by a recording device is provided in the lead-out area located at an outer area of the disc. This subject matter is not disclosed or suggested by the disclosure of *Roth et al.*

Accordingly, the rejection of appealed claim 5 should be reversed.

#### **Appealed claim 6**

Appealed claim 6 defines the subject matter for the device for recording and/or playback a record carry a of the inscribable type of appealed claim 1, the device comprising in reading means for reading the information recorded on the record carrier and recording means for recording the record carrier in accordance with an recording process, the reading means comprising means to read the auxiliary signal recorded on a record carrier, selecting means for selectively selecting extracting the special codes and the address codes from the auxiliary signal, control means for controlling the recording process, characterized in that, the control means are adapted to determine the predetermined positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination.

The Examiner's Answer on bottom of page 10 lists appealed claim 6; however, the subject matter defined by appealed claim 6 is not discussed there. The Examiner's Answer on the bottom of page 12 appears to more directly address the limitations of appealed claim 6. Appealed claim 6 defines control means that are adapted to determine the predetermined

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positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination. As previously discussed under the response to the Examiner's Answer for appealed claim 1, a correct interpretation for the limitation of the term "periodic pattern" of the address codes and special codes is not found within the rejection to appealed claim 1. Therefore, the control means that are adapted to determine the predetermined positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination can not be found.

Accordingly, the rejection of appealed claim 6 should be reversed.

**Appealed claim 7**

Appealed claim 7 defines subject matter for a device according to claim 6, characterized in that, the control means are adapted to read a special area on the record carrier upon detecting a predetermined positional relationship.

The Examiner's Answer, beginning near the top of page 13, addresses appealed claim 7. The Examiner's Answer states that *Roth et al.* discloses detection of the positional relationship and reading of a special area of the record carrier upon detection.

As previously discussed under the response to the Examiner's Answer for appealed claim 1, a correct interpretation for the limitation of the "periodic pattern" of the address codes and special codes is not used within the rejection to appealed claim 1 and not disclosed or suggested by the cited reference, *Roth et al.* Therefore, the control means adapted to read a special area on the record carrier upon detecting a predetermined positional relationship as defined by appealed claim 7 are not disclosed or suggested by the cited reference, *Roth et al.* In order to determine the predetermined positional relationship as defined by the present application for invention, a reasonable definition of the term "periodic pattern" of address codes and special codes must be applied. Simply put, the "periodic pattern" in accordance with the definitions supplied by the present application for invention and common usage must be applied in order to detect or determine the predetermined positional relationship. The appellant asserts that nowhere in the Examiner's Answer or any rejection during the prosecution of the present application for invention does the examiner apply a reasonable interpretation of the term "periodic pattern".

Accordingly, the rejection of appealed claim 7 should be reversed.

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**Appealed claim 8**

Appealed claim 8 defines subject matter for a device according to claim 7 that is adapted to cooperate with a record carrier provided with a lead-in zone at an inner part of the record carrier and a lead-out zone at an outer part of the record carrier, characterized in that, the control means are adapted to initially read in the special information in the lead-in zone and, only upon detection of a predetermined positional relationship, subsequently read the lead-out zone.

As previously discussed under the response to the Examiner's Answer for appealed claim 1, a correct interpretation for the limitation of the "periodic pattern" of the address codes and special codes is not used within the rejection to appealed claim 1 and not disclosed or suggested by the cited reference, *Roth et al.* Therefore, the control means that are adapted to initially read in the special information in the lead-in zone and, only upon detection of a predetermined positional relationship, subsequently read the lead-out zone are not disclosed or suggested by the cited reference, *Roth et al.* In order to determine the predetermined positional relationship as defined by the present application for invention, a reasonable definition of the term "periodic pattern" of address codes and special codes must be applied. Simply put, the "periodic pattern" in accordance with the definitions supplied by the present application for invention and common usage must be applied in order to detect or determine the predetermined positional relationship. The appellant asserts that nowhere in the Examiner's Answer or any rejection to the present invention does the examiner apply a reasonable interpretation of the term "periodic pattern".

Accordingly, the rejection of appealed claim 8 should be reversed.

**Appealed claim 9**

Appealed claim 9 defines the device accordingly to claim 1, wherein the predetermined positional relationship is defined by a shifting of the special codes.

As argued in the response to the Examiner's Answer for appealed claim 1 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for identifying anything. The predetermined positional relationship should be viewed as defined by the present application for invention, requiring the use of a "periodic pattern" as defined by the present application for invention. Appealed claim 9

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defines predetermined positional relationship is further defined by a shifting of the special codes. There is no disclosure or suggestion within *Roth et al.* for any predetermined positional relationship is defined by shifting of the special codes.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any periodic pattern to be shifted. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 1 discussed above, that there is no disclosure or suggestion for using the periodic pattern formed by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the predetermined positional relationship is defined by shifting of the special codes. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for defining the predetermined positional relationship by shifting of the special codes.

Accordingly, the rejection of appealed claim 9 should be reversed.

#### **Appealed claim 10**

Appealed claim 10 defines the subject matter for the device accordingly to claim 9, wherein the predetermined positional relationship is defined by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

As argued in the response to the Examiner's Answer for appealed claim 1 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for anything identification. The predetermined positional relationship should be viewed as defined by the present application for invention, requiring the use of a "periodic pattern" as defined by the present application for invention. Appealed claim 10 defines the predetermined positional relationship by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc. There is no disclosure or suggestion within

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*Roth et al.* for any predetermined positional relationship to be defined by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any "periodic pattern" to be shifted with respect to a lead-in area or a lead-out area of the disc. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 1 discussed above, that there is no disclosure or suggestion for using the periodic pattern formed by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the predetermined positional relationship is defined by shifting of the special codes with respect to a lead-in area or a lead-out area of the disc. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for defining the predetermined positional relationship by shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

Accordingly, the rejection of appealed claim 10 should be reversed.

#### **Appealed claim 11**

Appealed claim 11 defines subject matter for an optically inscribable record carrier disc, having a preformed track formed defining an auxiliary signal comprising a sequence of codes formed by a preformed track modulation, which codes comprise a sequence of address codes (AC) specifying the addresses of the track portions in which said address codes (AC) are recorded and special codes (SC) which can be distinguished from said address codes (AC) specifying control data for controlling a recording by a recording device and which sequence can be obtained by replacing a sequence of address codes (AC) having consecutive address values with special codes (SC), characterized in that, the said sequence comprises a periodic pattern of

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address codes and special codes which pattern has a predetermined positional relationship with respect to an additional piece of information (*emphasis added*).

Appealed claim 11 specifically defines the "period pattern" to be of address codes and special codes. The pattern as defined by appealed claim 11 is a "periodic pattern" that requires a repeating pattern of address codes and special codes. The rejection to appealed claim 11 has ignored the clear limitation of term "periodic pattern" as being one of address codes and special codes. The appellant, respectfully, submits that no reasonable interpretation of the term "periodic pattern" of address codes and special codes can include a pattern of only a single address code and a single auxiliary code as alleged by the examiner in making the rejection.

The term "periodic pattern" is defined as used within the application for the present invention as originally submitted on page 2, lines 8-10; which states that a "specific order, for instance of first second and third special code within the periodic pattern, may also easily be detected, as each special code should be uniquely identifiable." The appellant asserts that the specification to the present invention clearly defines that the periodic pattern includes multiple special codes. The term "periodic pattern" is also used within the Abstract to the present invention as the "periodic pattern of address codes and special codes has a predetermined relationship with respect to a predetermined reference address". Therefore, the specification to the present invention defines that the periodic pattern includes plural address codes and plural special codes.

The MPEP at §2111 states that during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. The MPEP at §2111 further states that the Patent and Trademark Office determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

The term periodic pattern within appealed claim 11 refers to a pattern that repeats itself on a periodic basis. The term periodic is defined by the American Heritage Dictionary, Third edition as 1. Having or marked by repeated cycles. 2. Happening or appearing at regular intervals. 3. Recurring or reappearing from time to time; intermittent. 4. Characterized by periodic sentences. Clearly, definition number 4 has no meaning application within the context

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of the present application for invention. Definitions 1, 2 and 3 do have application and the use of either of these definitions is compatible with the definition of periodic as applied to pattern as used within the specification to the present application for invention on page 2, lines 8-10 and within the Abstract of the present application for invention. There is no support in common usage or within the specification to the present application for invention for the examiner's interpretation of the term "periodic pattern" as only a single pattern.

The MPEP at §2111.01 quotes the court in stating that "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (*en banc*). A person of ordinary skill within the art would view the term "periodic pattern" as a pattern that repeats itself on a regular basis. There should be no doubt that the term "periodic pattern" refers to a pattern that occurs within repeated cycles, appears at regular intervals or reoccurs from time to time. The definition that is applied by the examiner in making the rejection is wholly inconsistent with the definition that is supplied within the specification to the application for the present invention and the definition that would be the ordinary and customary meaning to that term.

The rejection to appealed claim 11 (as restated on page 7 of the examiner's Answer) identifies column 6, line 1 through column 7, line 56 of *Roth et al.* as disclosing that the subject matter for "the said sequence comprises a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to a predetermined reference address". The appellant disagrees with this assertion made in the Examiner's Answer. This portion of *Roth et al.* simply teaches that marking of radial positions, such as r1 and r3, can be accomplished using auxiliary codes (see column 6, lines 43-50 of *Roth et al.*). There is no disclosure or suggestion within *Roth et al.* for "a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to an additional piece of information."

The Examiner's Answer asserts that *Roth et al.* disclose a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to an additional piece of information. This assertion is based on the sequence shown in Figure 7 of *Roth et al.* The examiner's position is that the sequence of address codes (AC) and

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auxiliary codes (HC) illustrated by Figure 7 of *Roth et al.* have a predetermined positional relationship with respect to an additional piece of information (see Examiner's Answer, bottom of page 10). It should be noted that the examiner does not assert that the periodic pattern of address codes and auxiliary codes has a predetermined relationship with respect to an additional piece of information.

The Examiner's Answer on the bottom of page 10, indicates that the disclosure of *Roth et al.* teach that the value of the address code (AC) for the predetermined address (AVI) has a positional relationship reference point marked by auxiliary code (HC). The appellant, respectfully, draws the Board's attention to the wording of appealed claim 11. Appealed claim 11 defines a periodic pattern of address codes and special codes. The periodic pattern is not a single pattern of nine addresses and a single auxiliary code, which is the subject matter within *Roth et al.* used by the examiner in making the rejection. The pattern defined by appealed claim 11 is a periodic pattern formed by successive address codes and special codes. Appealed claim 11 defines that this repeating pattern has a positional relationship with respect to an additional piece of information. Note that the Examiner's Answer on the bottom of page 7 states that *Roth et al.* disclose a period pattern formed of nine address codes (AC) followed by a special code (HC). The Examiner's Answer does not assert that this periodic pattern has a predetermined positional relationship with respect to an additional piece of information. The Examiner's Answer asserts that one of the periods within the pattern has a predetermined positional relationship with respect to an additional piece of information.

Accordingly, the rejection of appealed claim 11 should be reversed.

#### **Appealed claim 12**

Appealed claim 12 defines subject matter for the record carrier according to claim 11, provided with a lead-in area located at an inner area of the disc comprising said special codes, characterized in that, the additional piece of information is the start address or the end address of the lead-in area.

It should be noted that appealed claim 11 defines a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to an additional piece of information. The recitation of appealed claim 11 is for the periodic pattern to have a positional relationship with respect to an additional piece of information. The cited

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reference, *Roth et al.*, do not disclose a periodic pattern having a positional relationship with respect to an additional piece of information. *Roth et al.* disclose auxiliary codes in that the values for AVI and AVO (see *Roth et al.* column 6, lines 55-57). Therefore, *Roth et al.* disclose auxiliary codes that give the exact location of the lead-in area or the lead-out area. *Roth et al.* do not disclose or suggest positional relationship to the lead-in area or the lead-out area; instead *Roth et al.* disclose auxiliary codes that give the exact location of the lead-in area or the lead-out area. Appealed claim 12 defines a periodic pattern of address codes and special codes which pattern has a predetermined positional relationship with respect to the start address or the end address of the lead-in area. *Roth et al.* do not disclose, or suggest, any periodic pattern of address codes and auxiliary codes as providing any positional relationship with the start address or the end address of the lead-in area.

Accordingly, the rejection of appealed claim 12 should be reversed.

#### Appealed claim 13

Appealed claim 13 defines the record carrier according to claim 12, wherein the periodic pattern comprises special codes separated by a first number of successive address codes, characterized in that, the periodic pattern is shifted by a predetermined number of address codes with respect to the additional piece of information.

As argued in the response to the Examiner's Answer for the rejection of appealed claim 11 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for identifying anything. *Roth et al.* disclose auxiliary codes that give the exact location of areas, such as the lead-in area or the lead-out area. Appealed claim 13 clearly defines that the periodic pattern is formed by special codes separated by a first number of address codes. Appealed claim 13 includes all the elements of appealed claims 11 and 12. Appealed claims 11 and 12 define that the periodic pattern has a predetermined positional relationship with respect to the additional piece of information. There is no disclosure or suggestion within *Roth et al.* for any periodic pattern comprising special codes separated by a first number of successive address codes to have a predetermined positional relationship with respect to the additional piece of information.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any periodic pattern to be shifted by a predetermined number of address codes with respect to the

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predetermined reference address. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 11 discussed above, that there is no disclosure or suggestion for using the periodic pattern formed by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the periodic pattern is shifted by a predetermined number of address codes with respect to the predetermined reference address. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for shifting of the periodic pattern or that the periodic pattern is shifted by a number of address codes.

Accordingly, the rejection of appealed claim 13 should be reversed.

#### **Appealed claim 14**

Appealed claim 14 defines the record carrier according to claim 12, wherein the periodic pattern includes a first number of distinct special codes separated by a first number of successive address codes, characterized in that, the first number of distinct special codes have a predetermined order.

The Examiner's Answer on the top of page 12 addresses the appeal of claim 14. The examiner states that *Roth et al.* disclose the first number of distinct special codes has a predetermined order defined by the bit combination for bits 20, 21 and 22 within the auxiliary codes (HC). The appellant can not concur with this line of reasoning. Appealed claim 14 further defines the periodic pattern as including a first number of distinct special codes separated by a first number of successive address codes. The examiner attempts to read bits 20, 21 and 22 of the auxiliary codes (HC) within *Roth et al.* as the predetermined order of the distinct special codes. Appealed claim 14 clearly defines the first number of distinct special codes as being separated by a first number of successive address codes. It should be abundantly clear that bits

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20, 21 and 22 of the auxiliary codes (HC) within *Roth et al.* are not separated by a first number of successive address codes as required by appealed claim 14.

Furthermore, the examiner again ignores the clear meaning of "periodic pattern" as used within the appealed claims. Appealed claim 14 clearly defines the "periodic pattern" as including a first number of distinct special codes separated by a first number of successive address codes. A reasonable definition of the term "periodic pattern" should be used in evaluating the terminology for the first number of distinct special codes having a predetermined order, and this is not done in the rejection. The special codes have a predetermined order are separated by a first number of successive address codes. These elements are not addressed by the rejection to appealed claim 14.

Accordingly, the rejection of appealed claim 14 should be reversed.

#### **Appealed claim 15**

Appealed claim 15 defines the record carrier according to claim 12, provided with a lead-out area located at an outer area of the disc, in that the lead-out area comprises additional control information for controlling recording by a recording device, the presence thereof been indicated by the predetermined positional relationship.

Appealed claim 15 should be viewed in its proper context including all the elements of appealed claims 11 and 12. Appealed claim 11 defines a "periodic pattern" of address codes and special codes which pattern has a predetermined positional relationship with respect to the additional piece of information. Appealed claim 12 defines that the predetermined reference address is the start address or the end address of the lead-in area. Appealed claim 15, therefore, defines that the presence of additional control information for controlling recording by a recording device that is contained in the lead-out area and that the presence of this additional control information is indicated by the predetermined positional relationship. The "periodic pattern" has a predetermined positional relationship with respect to the additional piece of information. The rejection to the appealed claims has ignored the meaning of the "periodic pattern". As argued above in the response to the Examiner's Answer for appealed claim 11, the disclosure of *Roth et al.* do not disclose or suggest any use of the "periodic pattern" for a predetermined positional relationship with respect to the additional piece of information. The

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appellant therefore, respectfully, asserts that the predetermined positional relationship defined by the appealed claims is also not disclosed or suggested by the disclosure of *Roth et al.*

Appealed claim 15 defines that the predetermined positional relationship indicate that additional control information for controlling recording by a recording device is provided in the lead-out area located at an outer area of the disc. This subject matter is not disclosed or suggested by the disclosure of *Roth et al.*

Accordingly, the rejection of appealed claim 15 should be reversed.

#### Appealed claim 16

Appealed claim 16 defines the device for recording and/or playback a record carrier of the inscribable type as claimed in claim 11, the device including reading means for reading the information recorded on the record carrier and recording means for recording the record carrier in accordance with an recording process, the reading means comprising means to read the auxiliary signal recorded on a record carrier, selecting means for selectively selecting extracting the special codes and the address codes from the auxiliary signal, control means for controlling the recording process, wherein the control means are adapted to determine the predetermined positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination.

The Examiner's Answer on the bottom of page 12 addresses the limitations of appealed claim 16. Appealed claim 16 defines control means that are adapted to determine the predetermined positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination. As previously discussed under the response to the Examiner's Answer for appealed claim 16, a correct interpretation for the limitation of the term "periodic pattern" of the address codes and special codes is not found within the rejection to appealed claim 11. Therefore, the control means that are adapted to determine the predetermined positional relationship of the periodic pattern of address codes and special codes and to control the recording process in accordance with said determination can not be found.

Accordingly, the rejection of appealed claim 16 should be reversed.

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**Appealed claim 17**

Appealed claim 17 defines the device according to claim 16, wherein the control means are adapted to read a special area on the record carrier upon detecting a predetermined positional relationship.

The Examiner's Answer, beginning near the top of page 13, addresses appealed claim 17. The Examiner's Answer states that *Roth et al.* discloses detection of the positional relationship and reading of a special area of the record carrier upon detection.

As previously discussed under the response to the Examiner's Answer for appealed claim 11, a correct interpretation for the limitation of the "periodic pattern" of the address codes and special codes is not used within the rejection to appealed claim 11 and not disclosed or suggested by the cited reference, *Roth et al.* Therefore, the control means adapted to read a special area on the record carrier upon detecting a predetermined positional relationship as defined by appealed claim 17 are not disclosed or suggested by the cited reference, *Roth et al.* In order to determine the predetermined positional relationship as defined by the present application for invention, a reasonable definition of the term "periodic pattern" of address codes and special codes must be applied. Simply put, the "periodic pattern" in accordance with the definitions supplied by the present application for invention and common usage must be applied in order to detect or determine the predetermined positional relationship. The appellant asserts that nowhere in the Examiner's Answer or any rejection during the prosecution of the present application for invention does the examiner apply a reasonable interpretation of the term "periodic pattern".

Accordingly, the rejection of appealed claim 17 should be reversed.

**Appealed claim 18**

Appealed claim 18 defines the device according to claim 17, adapted to cooperate with a record carrier provided with a lead-in zone at an inner part of the record carrier and a lead-out zone at an outer part of the record carrier, wherein the control means are adapted to initially read in the special information in the lead-in zone and, only upon detection of a predetermined positional relationship, subsequently read the lead-out zone.

As previously discussed under the response to the Examiner's Answer for appealed claim 11, a correct interpretation for the limitation of the "periodic pattern" of the address codes and special codes is not used within the rejection to appealed claim 11 and not

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disclosed or suggested by the cited reference, *Roth et al.* Therefore, the control means that are adapted to initially read in the special information in the lead-in zone and, only upon detection of a predetermined positional relationship, subsequently read the lead-out zone are not disclosed or suggested by the cited reference, *Roth et al.* In order to determine the predetermined positional relationship as defined by the present application for invention, a reasonable definition of the term "periodic pattern" of address codes and special codes must be applied. Simply put, the "periodic pattern" in accordance with the definitions supplied by the present application for invention and common usage must be applied in order to detect or determine the predetermined positional relationship. The appellant asserts that nowhere in the Examiner's Answer or any rejection to the present invention does the examiner apply a reasonable interpretation of the term "periodic pattern".

Accordingly, the rejection of appealed claim 18 should be reversed.

**Appealed claim 19**

Appealed claim 19 defines the device accordingly of claim 11, wherein the predetermined positional relationship is defined by a shifting of the special codes.

As argued in the response to the Examiner's Answer for appealed claim 11 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for identifying anything. The predetermined positional relationship should be viewed as defined by the present application for invention, requiring the use of a "periodic pattern" as defined by the present application for invention. Appealed claim 19 defines predetermined positional relationship is further defined by a shifting of the special codes. There is no disclosure or suggestion within *Roth et al.* for any predetermined positional relationship is defined by shifting of the special codes.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any periodic pattern to be shifted. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 11 discussed above, that there is no disclosure or suggestion for using

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the periodic pattern formed by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the predetermined positional relationship is defined by shifting of the special codes. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for defining the predetermined positional relationship by shifting of the special codes.

Accordingly, the rejection of appealed claim 19 should be reversed.

**Appealed claim 20**

Appealed claim 20 defines the device of claim 19, wherein the predetermined positional relationship is defined by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

As argued in the response to the Examiner's Answer for appealed claim 11 above, there is no disclosure or suggestion within *Roth et al.* for using any periodic pattern formed by address codes and auxiliary codes for anything identification. The predetermined positional relationship should be viewed as defined by the present application for invention, requiring the use of a "periodic pattern" as defined by the present application for invention. Appealed claim 20 defines the predetermined positional relationship by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc. There is no disclosure or suggestion within *Roth et al.* for any predetermined positional relationship to be defined by the shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

Furthermore, there is no disclosure or suggestion within *Roth et al.* for any "periodic pattern" to be shifted with respect to a lead-in area or a lead-out area of the disc. The Examiner's Answer on the bottom of page 11 states that *Roth et al.* disclose the auxiliary code does not have to mark the AVI position and that the auxiliary code is preferably recorded in the lead-in area. The examiner then concludes that positions are therefore selected freely and that any shifted position for special or address codes is therefore, disclosed. The appellant asserts as previously discussed under the response to the Examiner's Answer for appealed claim 11 discussed above, that there is no disclosure or suggestion for using the periodic pattern formed

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by a repeating pattern of special codes and address codes as a positional reference to a predetermined address. The examiner has not provided any disclosure within *Roth et al.* that would suggest to a person of ordinary skill within the art, that the predetermined positional relationship is defined by shifting of the special codes with respect to a lead-in area or a lead-out area of the disc. The examiner has merely made a statement that auxiliary codes can be anywhere and therefore they can also be shifted. It should be noted that the Examiner's Answer only address the positions of auxiliary codes (HC) and does not even address the subject matter for defining the predetermined positional relationship by shifting of the special codes with respect to a lead-in area or a lead-out area of the disc.

Accordingly, the rejection of appealed claim 20 should be reversed.

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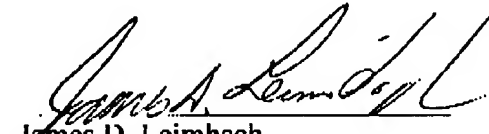


**Conclusion**

In summary, the examiner's rejections of the claims are believed to be in error for the reasons explained above. The rejections of each of claims 1-20 should be reversed.

The Commissioner is hereby authorized to charge fees due with this Reply Brief to Account No. 50-3745, including any extension fees but excluding issue fees.

Respectfully submitted,



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